

REMARKS

Claims 1-21 are present in this application. Claims 1, 15, 18, and 19 are independent.

Allowable Subject Matter

Applicants acknowledge with appreciation that claims 15-17 and 19-21 are allowed, and that claims 9-11 and 13 are allowable.

Claim Rejection

Claims 1-8, 12, 14 and 18 have been rejected under 35 U.S.C. § 102(e) as being anticipated by Gulick. Applicants traverse this rejection.

Claims 1 and 18

Claim 1 is directed to embodiments for a transmission method capable of transmitting and receiving a data waveform signal and a periodic waveform signal among a plurality of devices by full-duplex operation, wherein when the information waveform signal consecutively repeats a single pattern, a different pattern is inserted between the same patterns before transmitting the single patterns. Claim 18 is directed to a transmission system.

With regard to the claimed “the information waveform signal consecutively repeats a single pattern”, the Office Action states that when frames are not being transmitted over the link provided by DLC 52 - Fig. 2, the link is said to be idle, i.e., is inherently occupied by an idling waveform (referring to col. 7, lines 52-62, Figs. 2-3). With regard to the claimed “a different pattern is inserted between the same patterns before transmitting the single patterns,” the Office

Action states that when the link is idle, the DLC can be programmed by microprocessor to send an all ONEs pattern, which is referred to as Mark Idle for transmission of the idle status.

Legal Requirements for Inherency

To establish inherency, the extrinsic evidence “must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.” *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999). “In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the alleged inherent characteristic necessarily flows from the teachings of the applied prior art.” *Ex parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990). Once a reference teaching a product appearing to be substantially identical is made the basis of a rejection, and the examiner presents evidence or reasoning tending to show inherency, the burden shifts to the applicant to show an unobvious difference. “The PTO can require an applicant to prove that the prior art products do not necessarily or inherently possess the characteristics of his claimed product. Whether the rejection is based on ‘inherency’ under 35 U.S.C. 102, on ‘*prima facie* obviousness’ under 35 U.S.C. 103, jointly or alternatively, the burden of proof is the same.” *In re Fitzgerald*, 619 F.2d 67, 70, 205 USPQ 594, 596 (CCPA 1980).

The Office Action indicates that an idle link is inherently occupied by an idling waveform. Applicants disagree that an idle link would inherently be occupied by an idling waveform, or that the idling waveform would inherently have a repeated single pattern. Gulick simply does not disclose an idling waveform.

The Office Action appears to indicate that a Mark Idle (MI) pattern would correspond to the claimed “different pattern.” As Gulick does not disclose an “idling waveform,” Gulick does not teach inserting a MI pattern between the idling waveform before transmitting the idling waveform.

It is Applicants understanding of Gulick that during an idle period when frames are not being transmitted over a link, an all ONEs pattern having at least 15 contiguous ONEs can be

transmitted (col. 7, lines 52-58). Similar to the conventional art disclosed in the present application, no other signal is inserted into the all ONE's pattern before being transmitted.

Gulick further discloses that during a non-idle period, back-to-back Flags can be transmitted between frames indicating a Flag Idle condition (col. 7, lines 59-62). Flag Idle and Mark Idle are used during non-idle (i.e., when frames are being transmitted) and idle periods, respectively. Applicants submit that these two signals would not be used at the same time (see Gulick at col. 23, lines 41-43). Thus, Flag Idle and Mark Idle would not be inserted into each other and thus would not meet the claimed invention.

For the above reasons, Applicants request that the rejection be reconsidered and withdrawn.

Further with regard to claims 3 and 4, the Office Action alleges that the microprocessor can be programmed to send MI at either a random interval or a fixed interval. Applicants disagree. Gulick does not at all disclose an interval for inserting MI patterns. MI is clearly disclosed as being a continuous string of ONEs. Varying the string would be contrary to the teachings of Gulick.

Regarding claim 5, the Office Action alleges that the Flag Idle of Gulick would be a "different pattern" comparable to the Mark Idle. Applicants disagree. The Flag Idle pattern is not disclosed as being used during an Idle period.

On the other hand, with respect to claims 6 and 7, the Office Action appears to inconsistently allege that the Mark Idle corresponds to the claimed "single pattern." In other words the rejection of claim 6 is contradictory with the rejection of claim 5.

For at least these additional reasons, Applicants request that the rejection be reconsidered and withdrawn.

Conclusion


In view of the above amendment, Applicants believe the pending application is in condition for allowance.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Robert W. Downs (Reg. No. 48,222) at the telephone number of (703) 205-8000, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

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Respectfully submitted,

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